

***Dryopteris cristata* (L.) Gray**  
crested shield-fern  
Dryopteridaceae (Wood Fern Family)

**Status:** State Sensitive  
**Rank:** G5S2

**General Description:** Adapted from Montgomery and Wagner (1993): Leaves clustered on a short rhizome, dimorphic, 14 to 28 inches x 3¼ to 4¾ inches. Fertile leaves dying back in winter. Sterile leaves several, small, green through winter, forming a “rosette”. Petiole ¼ to 1/3 the length of the leaf, scaly at least at the base. Scales scattered, tan. Blade green, narrowly lanceolate or with parallel sides, pinnate-pinnatifid, not glandular. Pinnae of fertile leaves twisted out of plane of the blade and perpendicular to it, deltate. Basal pinnae deltate, somewhat reduced, basal pinnules longer than adjacent pinnules, basal basiscopic pinnule and acroscopic pinnule equal. Pinnule margins distantly serrate, with spiny teeth. Sori midway between midvein and margin of segments. Indusia lacking glands.

**Identification Tips:** Identification can be complicated by the frequent presence of hybrids in the field.

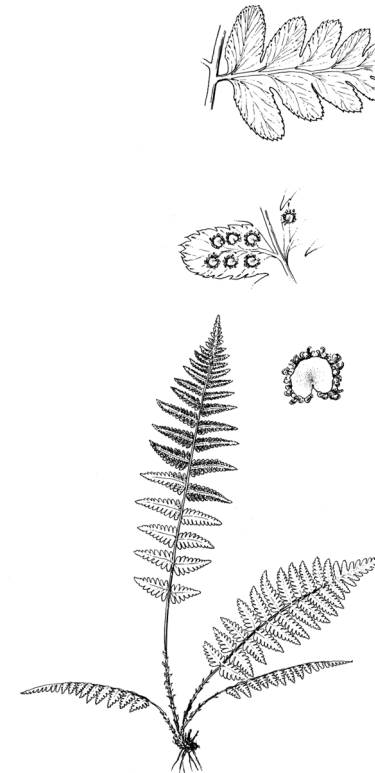
**Phenology:** Sporulates June through September.

**Range:** Circumboreal, extending south in America to northern Idaho, northwest Montana, Arkansas, and North Carolina. Peripheral in Washington, currently known from Pend Oreille and Stevens counties in the Okanogan Highlands physiographic province.

**Habitat:** Washington populations occur in wet meadows, cedar/spruce forested wetlands, or open shrubby wetlands. The individual plants are found primarily on hummocks, on downed woody debris within the wetlands, or at the base of tall deciduous shrubs. Soils are generally very high in organic matter. Elevation ranges from 2100 to 4100 feet.

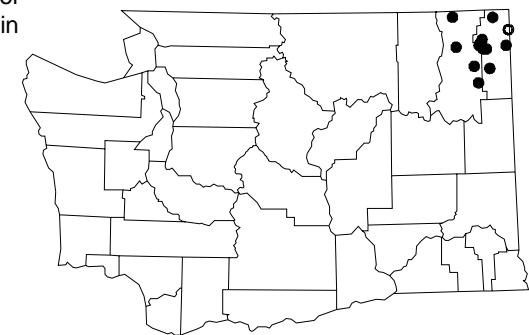
**Ecology:** The species is identified as being a facultative wetland species (USFWS 1988). The microsites tend to be slightly raised above the surface of the wetlands (e.g., on hummocks). Beaver activity is high at some sites and probably has played an important role in the formation of the wetland vegetation complexes. Herbivory by both cattle and deer has been observed on this plant.

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Known distribution of  
*Dryopteris cristata* in  
Washington



● Current (1980+)  
○ Historic (older than 1980)

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**State Status Comments:** The species is peripheral in Washington; its limited distribution within the state is the primary factor responsible for its assigned status.

**Inventory Needs:** Appropriate habitats should continue to be inventoried.

**Threats and Management Concerns:** Threats to the taxon include grazing, timber harvesting, hydrologic change, and recreation. Competition with non-native species such as reed canarygrass (*Phalaris arundinacea*) may become a threat.

**References:**

Hitchcock, C. L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1969. *Vascular Plants of the Pacific Northwest, Part 1: Vascular Cryptogams, Gymnosperms, and Monocotyledons*. University of Washington Press, Seattle. 914 pp.

Lellinger, D.B. 1985. *A Field Manual of the Ferns & Fern-Allies of the United States & Canada*. Smithsonian Institution Press, Washington, D.C.

Montgomery, J.D., and W.H. Wagner Jr. 1993. *Flora of North America, Volume 2: Pteridophytes and Gymnosperms*. Treatment of the genus *Dryopteris*. pp. 280-288.

U.S. Fish and Wildlife Service. 1988. National list of vascular plant species that occur in wetlands. USFWS Biological Report 88 (24).